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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/804,089

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Ulrich Orth

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EXAMINER

EIDE, HEIDI MARIE

ART UNIT

PAPER NUMBER

3732

MAIL DATE

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/804,089	Applicant(s) ORTH ET AL.	
	Examiner HEIDI M. EIDE	Art Unit 3732	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 05 February 2009.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-18, 26 and 31 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-18, 26 and 31 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

A request for continued examination under 37 CFR 1.114 was filed in this application after a decision by the Board of Patent Appeals and Interferences, but before the filing of a Notice of Appeal to the Court of Appeals for the Federal Circuit or the commencement of a civil action. Since this application is eligible for continued examination under 37 CFR 1.114 and the fee set forth in 37 CFR 1.17(e) has been timely paid, the appeal has been withdrawn pursuant to 37 CFR 1.114 and prosecution in this application has been reopened pursuant to 37 CFR 1.114. Applicant's submission filed on February 5, 2009 has been entered.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

1. Claims 1-14, 17-18, 26 and 31 are rejected under 35 U.S.C. 102(b) as being anticipated by Farag et al. (US 2002/0028418). In re claim 1, Farag discloses the use of a database for the storage of data (paragraph 0038), said database comprising dental data concerning universally applicable dentition-specific and tooth-specific

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features wherein the data illustrate real teeth as images in digitized form (paragraph 0038) and said digitized form involves dentition-specific and tooth-specific features including tooth family-specific characteristics (123, Figure 8) wherein the dentition specific and tooth specific features are capable of being separately identified by the user. As to claim 2, the dental data are associated with an actual person (paragraph 0038). As to claims 3 and 6, the dentition-specific and tooth-specific features comprise data representing number, position, character, and anomalies of teeth and their cooperation with each other (123, Figure 8). In re claims 4-5 and 7-8, Farag discloses producing a physical cast of the dentition-specific structure that is individualized to the patient (paragraph 0037). As to claim 9, additional data can be stored relating to dental design features (paragraph 0093). As to claim 10, the database is located directly on the premises (124, Figure 1) and can also be situated any place in the world and accessed by telecommunication means (paragraphs 0025/0029). As to claim 11, the database is equipped with an input unit and (116) an output unit (112). As to claim 12, the input unit comprises a keyboard (116), display means and a monitor (112) since the display means can be used to view what is being inputted by the keyboard. As to claim 13, the database is accessible by a user with the aid of input and display unit (paragraph 0027). As to claim 14, a computer program supports interaction between the input unit, display unit, and database (paragraphs 0026/0027). As to claims 17 and 18, the data of the database is used to construct a tooth model (paragraph 0095) and wherein the tooth model includes an outer surface specified by means of the data, wherein the data used for this purpose is taken from the database. In re claim 26, the

database is used in a method (300) of conceiving the tooth model whose external shape is constructed from the data, said method comprising taking data from the data base and forming an image of a tooth model on display means (Figure 8), and with help of the image, input, and output devices, producing the model (Figure 3). As to claim 31, the tooth specific features are capable of being used as a characteristic for a search in the data base, by looking at the 3-D images contained in the data base. Examiner notes that Applicant does not positively claim a method of conceiving the tooth model or searching the data base. As a result, the content of the claim is considered as functional language, whereby statements of intended use and other functional statements do not impose any structural limitations on the claims distinguishable over the prior art of record. Similarly, Examiner notes that claims 13 and 15 are predominantly recitations of functional language and hence the examination of which follows the same guidelines outlined above.

Claims 1-2, 11-12 17 and 31 rejected under 35 U.S.C. 102(e) as being anticipated by Dillier 2002/0110786. Dillier discloses a data base for the storage of data, the data base comprising dental data concerning universally applicable dentition specific features and universally applicable tooth specific features, wherein the dental data illustrate real teeth as images in digitized form and the digitized form also involves one of universally applicable dentition features, tooth specific features and structural properties including a tooth family-specific characteristic, the dentition specific and tooth specific features are capable of being separately identified, the dental data are associated with an actual person, the tooth specific features are used as characteristics

for a search in the database, the data of the database serve to construct a tooth model wherein the tooth model includes at least an outer surface specified by means of the data and displayed on an output device, wherein the data used for this purpose are taken from the data base and the data are suitably adapted (par. 104-105). As to claims 11-12, Dillier teaches the data base being equipped with an input means comprising a display means (par. 105). Dillier further teaches a method of conceiving the tooth model whose at least one external shape is at least one of designed and constructed by means of the data, the method comprising at least one of a user and a client, with the aid of an electronic data processing system, accessing the data base, combining data on a display means to form an image of a tooth model, and with the aid of the image of a tooth model, producing the tooth model whose shape can be processed with the aid of input and output devices of the electronic data processing system (par. 104-105, 5)

Claims 1-9, 11-13, 17-19, 26 and 31 are rejected under 35 U.S.C. 102(e) as being anticipated by Mehl 2006/0063135. Mehl discloses a data base for the storage of data comprising dental data concerning universally applicable dentition specific features and universally applicable tooth specific features, wherein the dental data illustrate real teeth as images in digitized form and the digitized form also involves one of universally applicable tooth specific features including tooth family specific characteristics, the dentition specific and tooth specific features being separately identified, wherein the dental data are associated with an actual person and the dentition specific features can be used as characteristics for a search in the data base (par. 37-38, 82-86). Mehl

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further teaches wherein the dentition specific features comprising data representing number, position, character and anomalies of teeth of various types and their cooperation with each other, an individualized particular dentition specific structure ascertained from any number of individual dentition specific features of individual dentations, wherein the tooth specific features include data which represent the position, shape, character and anomalies of an individual tooth at any position in the dentition, an individualized particular tooth specific structure ascertained from any number of individual tooth specific features of individual teeth situated at the same position in the dentition, additionally stored data relating to dental design features based on the dentition specific. Mehl further teaches the data base being equipped with an input unit, the input unit comprising a display means, the data base being accessible by a user with the aid of the input unit and display means for fetching data from the input unit as shown on the display means, the data of the data base serve to construct a tooth model, wherein the tooth model includes at least an outer surface specified by means of the data and displayed on an output device wherein the data used for this purpose are taken from the data base and the data are suitably adapted (par. 32-34, 37-39, 82-83, 90, 93). Mehl further teaches a method of conceiving the tooth model whose at least one external shape and internal structure is at least one of designed and constructed by means of the data, the method comprising at least one of a user and a client with the aid of an electronic data processing system, accessing the data base, combining data on display means to form an image of a tooth model and with the aid of the image of the tooth model, producing the tooth model, whose shape can be processed with aid of

input and output devices of the electronic data processing system (see abstract, par. 38, 82).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 15 and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Farag in view of Paiz (US 2001/0037304). In re claim 15, Farag discloses the database as previously described, but fails to disclose an exchange of data between the user and the operating terminal is only possible with the aid of a payment system. Paiz, however, teaches providing data to a user through a computer network system in exchange for payment (claim 11). Therefore, it would have been obvious to one having ordinary skill in the art at the time of Applicant's invention to make the exchange of data only possible with the aid of a payment system in order to control user access and collect payment for said access as taught by Paiz. As to claim 16, Farag discloses the computer program synthesizes new data from selected data (paragraph 0031).

Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over Mehl 2006/0063135 as applied to claim 1 above, and further in view of Farag et al. (US 2002/0028418). Mehl teaches the invention as discussed above, however, does not specifically teach the data base being accessed by telecommunication means (par. 25). It would have been obvious to one having ordinary skill in the art at the time of the

invention to modify Mehl in view of Farag in order to easily share the information contained in the data base.

Claim 14 is rejected under 35 U.S.C. 103(a) as being unpatentable over Mehl 2006/0063135. Mehl does not specifically teach the interaction between the input unit, display means, and the data base is supported by at least one computer program, however, it would have been obvious to one having ordinary skill in the art at the time of the invention that a computer program is contained on the computer containing the database to control the function of the computer.

3. Claims 15 and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mehl 2006/0063135 in view of Paiz (US 2001/0037304). In re claim 15, Mehl discloses the database as previously described, but fails to disclose an exchange of data between the user and the operating terminal is only possible with the aid of a payment system. Paiz, however, teaches providing data to a user through a computer network system in exchange for payment (claim 11). Therefore, it would have been obvious to one having ordinary skill in the art at the time of Applicant's invention to make the exchange of data only possible with the aid of a payment system in order to control user access and collect payment for said access as taught by Paiz. As to claim 16, Mehl teaches the computer program synthesizes new data from selected data (par. 86).

Response to Arguments

Applicant's arguments filed February 5, 2009 have been fully considered but they are not persuasive. Applicant argues that the amendment to claim 1 including "said

dentition specific and tooth specific features being separately identified” is not taught by Farag. However, these features can be separately identified by the user upon examination of the 3-D image of the patient’s oral cavity stored in the database; therefore the claimed limitation is met. Applicant further argues regarding claim 1 that the features stored in the database cannot be used as characteristics for any search, however, the images contained in the 3-D data base can be searched by the user by looking at the images trying to locate a specific feature as desired by the user. Further applicant argues that Farag does not disclose a database with identified tooth-specific structures, but only discloses storage of 3-D images, however the 3-D images stored in the database contain tooth specific features, therefore the claimed limitation is met.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to HEIDI M. EIDE whose telephone number is (571)270-3081. The examiner can normally be reached on Mon-Thurs.

If attempts to reach the examiner by telephone are unsuccessful, the examiner’s supervisor, Cris Rodriguez can be reached on 571-272-4964. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Heidi Eide
Examiner
Art Unit 3732

/John J Wilson/
Primary Examiner
Art Unit 3732

/Heidi M Eide/
Examiner, Art Unit 3732

4/15/2009